

NH Tidal Energy Commission Compilation of Meeting Minutes

NH Tidal Energy Commission Meeting

NHDES Pease Field Office, Portsmouth, NH
August 29, 2007, 9:30 AM

Members: Rep. Marcia Moody, Newmarket (Meeting Chair)
Rep. Roland Hofemann, Dover
Michael Dugas, Department of Transportation
Jack Ruderman, Office of Energy and Planning
Sean Mc Dermott, National Marine Fisheries Service
Rep. Thomas Fargo, City of Dover
Jack Pare, Town of Newington
Dr. Ken Baldwin, UNH
Cynthia Copeland, (SRPC) for NH Estuaries Project
Erik Anderson, NH Commercial Fishermen's Assoc.
Ted Diers, NHDES Coastal Program
Nancy Borden, Member of Public
Otis Perry, Office of Consumer Advocate
Eric Steltzer, Rockingham Planning Commission

Other Attendees: David Funk, Great Bay Stewards
Peter Britz, City of Portsmouth
Kathleen Lewis, PSNH
David Kellam, NH Estuaries Project
Christian Williams, NH Coastal Program

Summary:

Rep. Marcia Moody, acting Chair, asked the attendees to introduce themselves.

Jack Pare, Commission member from Newington, gave an overview of tidal energy technology for members. Mr. Pare presented the following salient points about tidal energy beneath the GS-LB bridges:

- Predictable, unending energy source.
- Area of Estuary System Upstream of Bridges: 8.9 square miles of water (5,696 acres)
- Volume (Tidal Prism) Passing Under Bridges per Tide Cycle: 1.29 Billion Cubic Feet
- Maximum Current Velocity, Combined Pier (NHDOT Draft EIS Model Case 5):

- 9.2 ft/sec (2.8 m/sec) flood
- 9.8 ft/sec (3.0 m/sec) ebb
- Water volume must pass through 23,000 square feet (approx 1/2 acre).
- Two-knot 'stall point' is less than 25 minutes.
- Zero velocity seldom exceeds 10 minutes.
- Can yield a capacity factor of around 60%.
- Power transmission infrastructure close to bridges.
- Can balance tidal generation with nearby peaking plant generation.
- Bridge location is totally within NH jurisdiction.
- Bridge substructure to be modified in near future to widen bridges resulting in 200-ft long channels.
- No large vessels pass under bridges.
- "Tidal fence" generating scheme less disruptive than dispersed array of "underwater wind farm".
- Variety of equipment available for application. Preference seems to go toward ducted, slow-moving blade technologies.
- Ecological considerations:
 - Impacts on fin and lobster fisheries?
 - Impacts on marine mammals?
 - Impacts on the ebb and flow of tides throughout the Great Bay Estuary?

Member Discussions:

- Ken Baldwin stated that currents in the study area are not as simple as many assume.
- Sean McDermott stated that Verdant's (NH Tidal Energy Company) data is not solid in their projects in the Merrimack and East Rivers.
- Erik Anderson stated that the biological assessment portion of the project is very important
- Jack Pare identified several FERC permit issues of potential concern.

The Commission members discussed whether subsequent meetings should be held in Concord or in the seacoast area. Most members indicated that a seacoast location would be preferred. The next commission meeting was scheduled for Thursday, September 20, 2007 at 9:30 AM at the NHDES Pease Field office.

The meeting was adjourned to take a walking tour of the Little Bay - General Sullivan bridges site. Most members also eat lunch at the nearby Newick's Restaurant.